

# POLYTEKNIK \*\*

# TORNADO COMPACT LAB EVAPORATION AND SPUTTERING

Tornado Compact LAB is a compact deposition system – a real lab workhorse, and due to the easy access, easy operation, and high process repeatability, it is a preferred tool for both the young student and the experienced scientist. The system is available with evaporation or sputtering sources. It is a versatile entry level deposition system with fully automated process control and data logging with Cryosoft3 HMI.

Available with manual load lock for even faster processing. Application examples involve general thin film R&D, photovoltaic materials, multilayer ohmic contacts, oxide and nitride coatings, graded cermet layers, metal coatings for electrodes, and hydrophobic or hydrophilic ceramic layers.





## TORNADO SPUTTERING

- Up to five 2-3" magnetrons
- Up to three 4" magnetrons
- · Supports DC, pDC, RF, and HiPIMS sputtering
- Single target or multi target co-deposition
- Deposition of metals, nitrides, and oxides
- Reactive sputtering

#### TORNADO EVAPORATION

- Metallisation
- Lift-off processes
- Optionally combined with thermal evaporator
- E-beam and thermal evaporation



## SINGLE SUBSTRATE STAGE

- · Continuous 360° or indexed rotation
- Backside resistive heating up to 400°C
- Water cooled substrate stage with tilt (+/-45deg)
- Single substrate load lock
- Typical substrate size up to 4" (100mm)
- · RF/DC Bias feeding

#### **BATCH SUBSTRATE FIXTURE**

- Max diameter 300mm
- Wafer capacity: 8×3" (76,2mm), 5×4" (100mm)
- RF/DC Bias feeding

